UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

October 1963

Part II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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* Part I - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN
OCTOBER 1963

Acknowledgments

The following organizations and stations contributed data for the October 1963 charts:

U.S. Weather Bureau, San Diego, California
U.S. Weather Bureau Ship Visitation Office, Long Beach, California
U.S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U.S. Bureau of Commercial Fisheries Biological Laboratories, Honolulu, Hawaii; Seattle, Washington
U.S. Bureau of Commercial Fisheries, Exploratory Fishing and Gear Research Base, Seattle, Washington
Guadalupe Island, Coronado Island, Ensenada, Cedros Island and Almejas Bay by Pedro Mercado of the Universidad Autonoma de Baja California, Ensenada, Mexico
Hopkins Marine Station, Pacific Grove, California by J. P. Balesteri
Instituto de Investigacion de Los Recursos Marinos, Callao, Peru
Inter-American Geodetic Survey by Rene Cortes at Salina Cruz, Mexico; David Ortega at Manzanillo, Mexico; Romeo Valencia at Pt. San Jose, Guatemala; R. Pereira at Pt. Armuelles, Panama; V. E. Castillo at Tumaco, Colombia; N. Zambrano at San Cristobal, Galapagos; S. Valenzuela at La Libertad, Ecuador; G. Villar at Talara, Peru; Juan Andia at San Juan, Peru
Inter-American Tropical Tuna Commission, La Jolla and Terminal Island, California
Kelco Company, San Diego, California
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by R. W. Collins at Quatsino Lightstation; N. R. Shrimpton at Cape St. James Light; B. Stuart at Amphitrite Point Light; C. Marshall at Langara Island Light
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 8000 observations. Squares show temperatures at weather-ship stations. Numerals on shore are temperatures at coastal and light stations.

Figure 2.--Deviation of sea surface temperatures (°F) from long term mean charts of H.O. 225. Hatched areas are colder than mean.

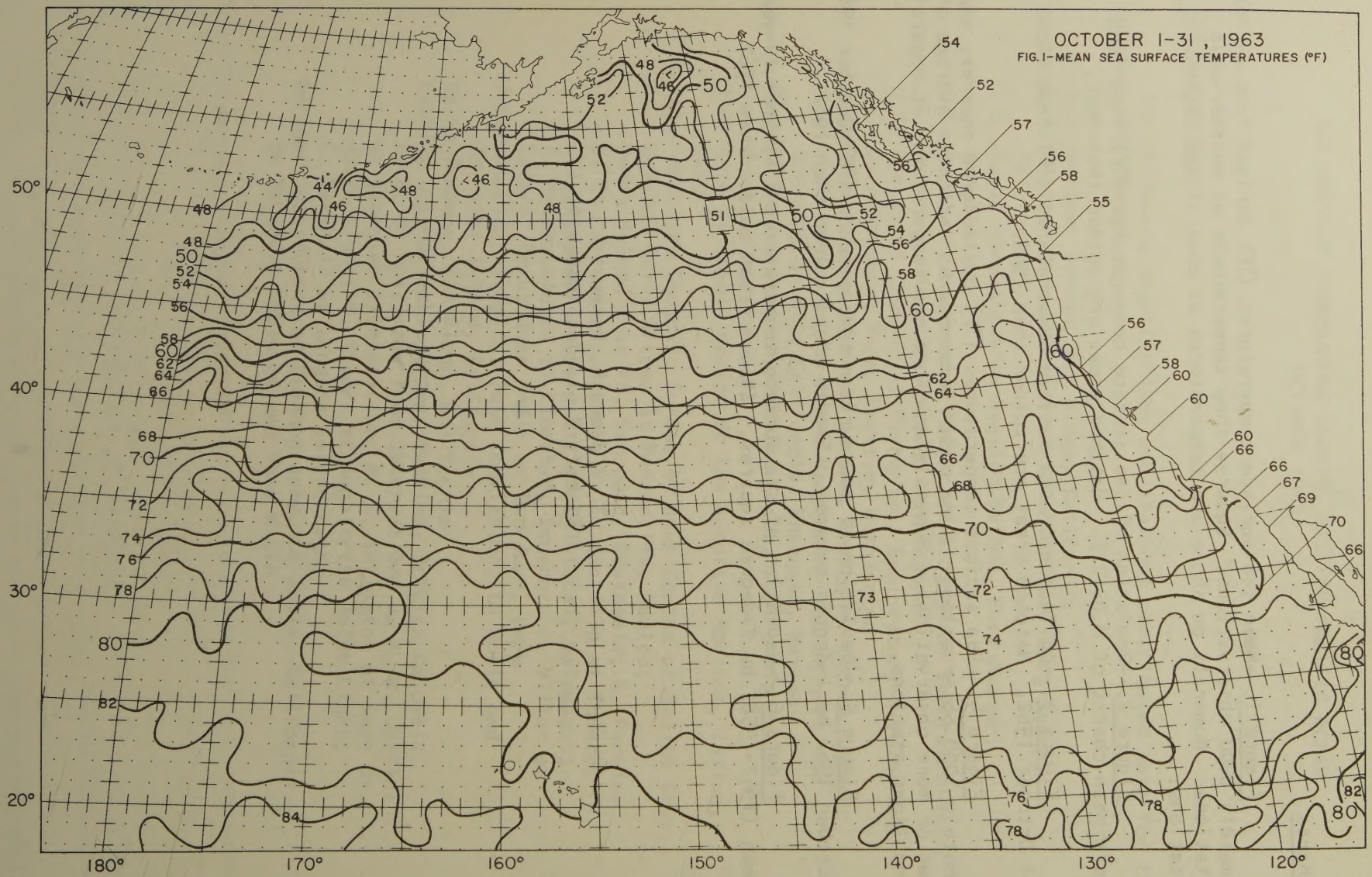
Figure 3.--Deviation of sea surface temperatures (°F) from those of October 1962. Hatched areas are colder than 1962.

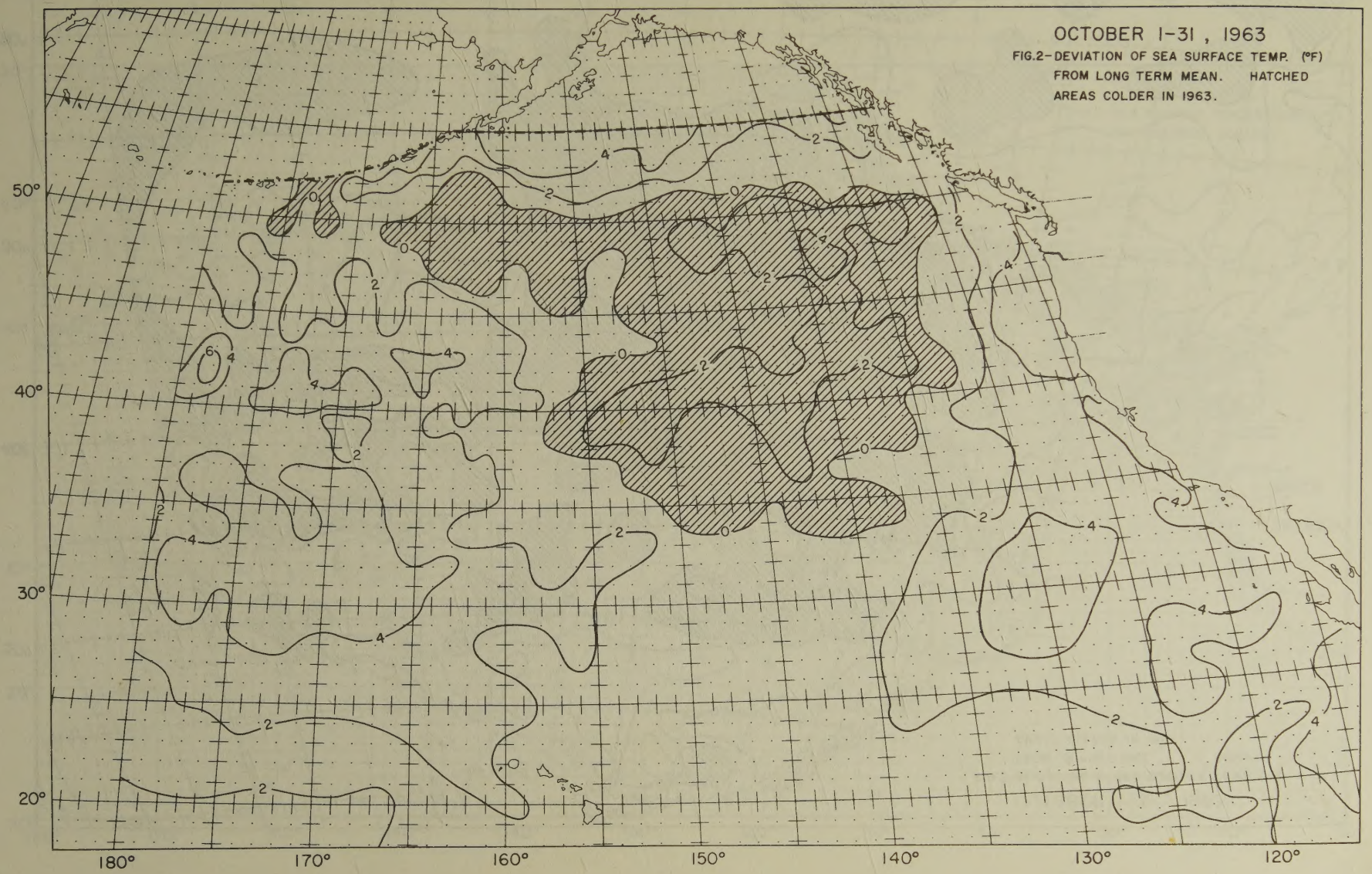
Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal and light stations.

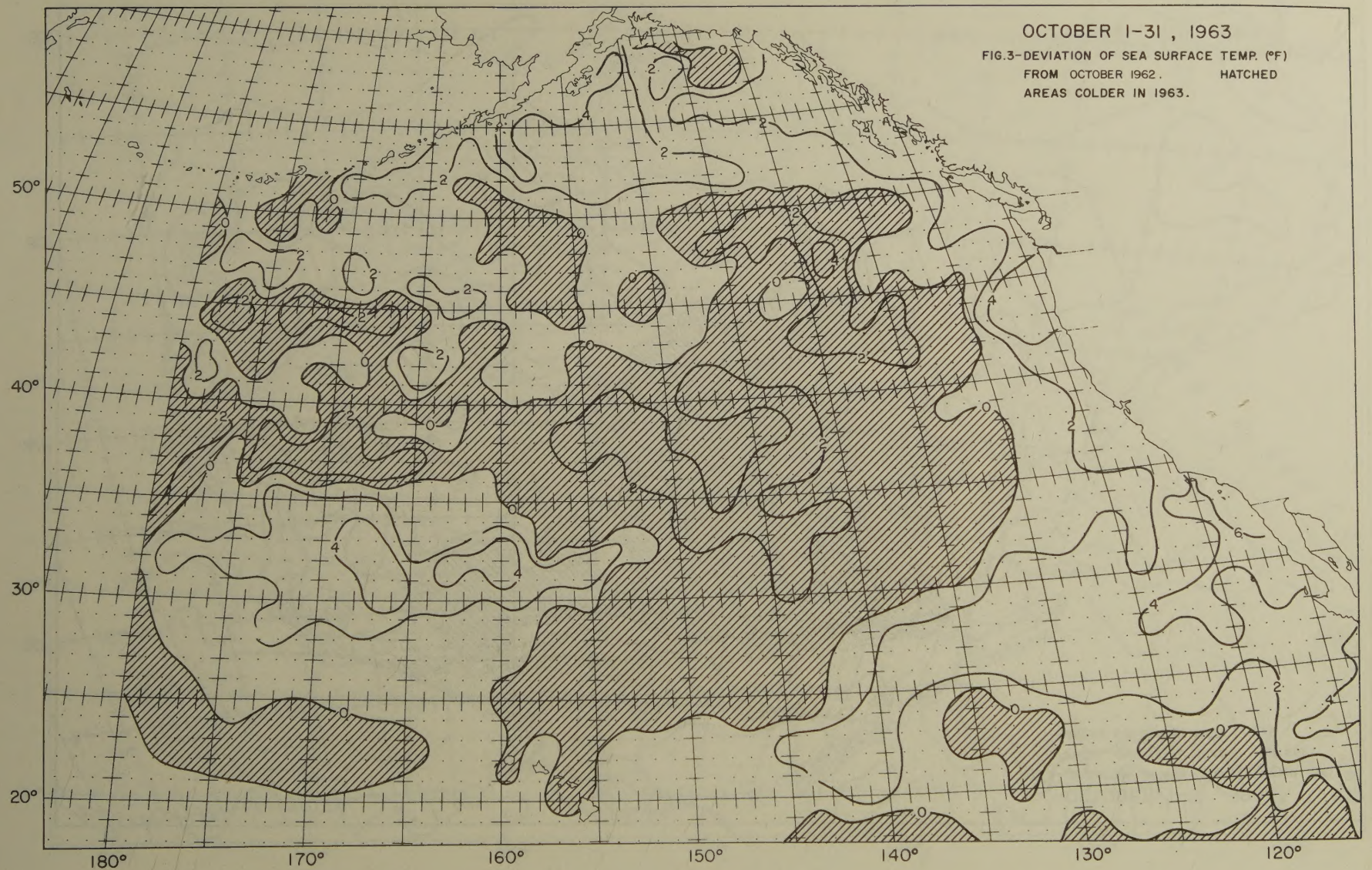
Figure 5.--Deviation of sea surface temperatures (°F) October 1963-October 1962 by 1-degree squares. Shaded areas colder than 1962.

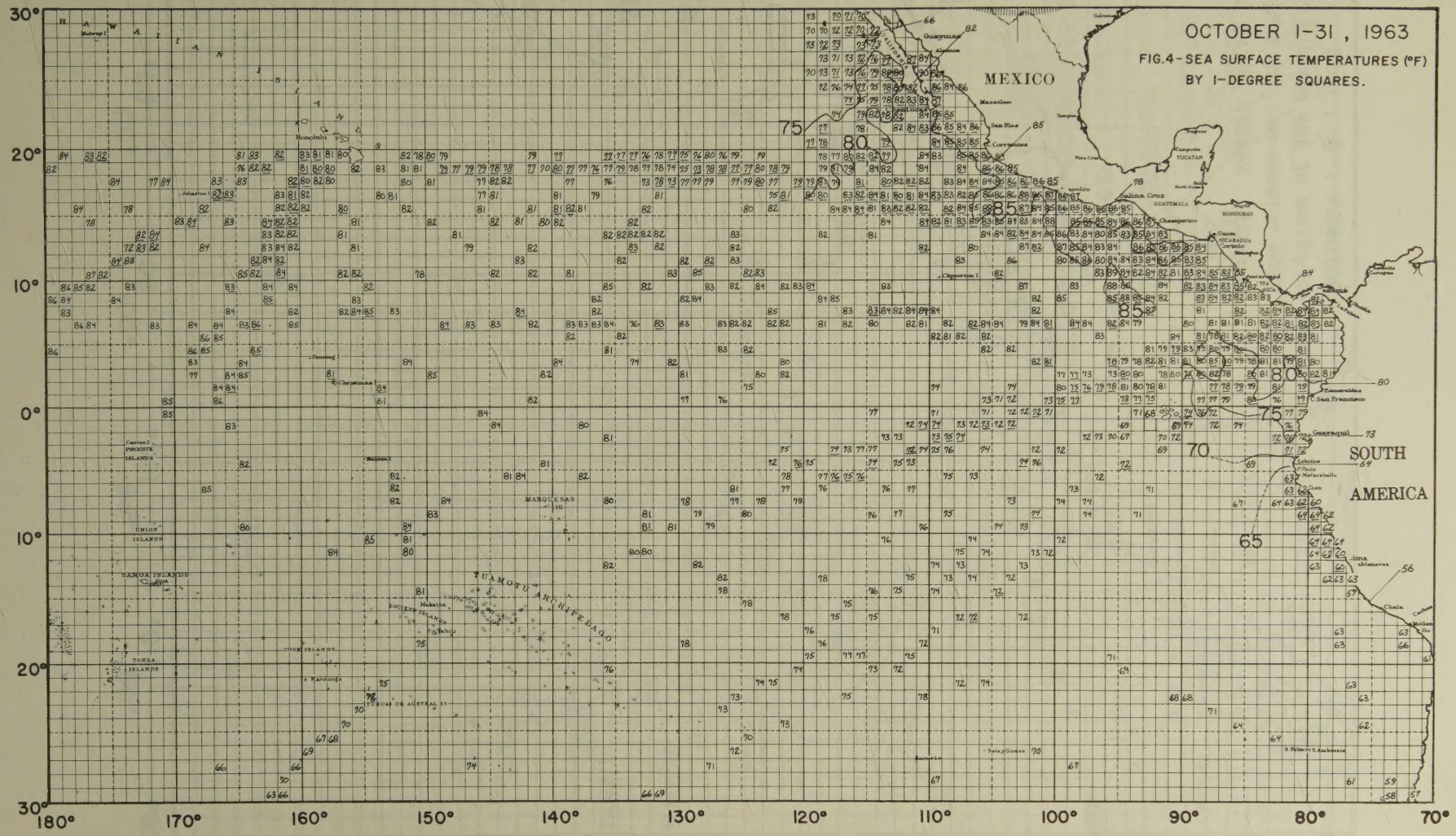
Figure 6.--Deviation of sea surface temperatures (°F) from 12-year mean (1947-1958) by 2-degree squares. Shaded areas colder than 1962.

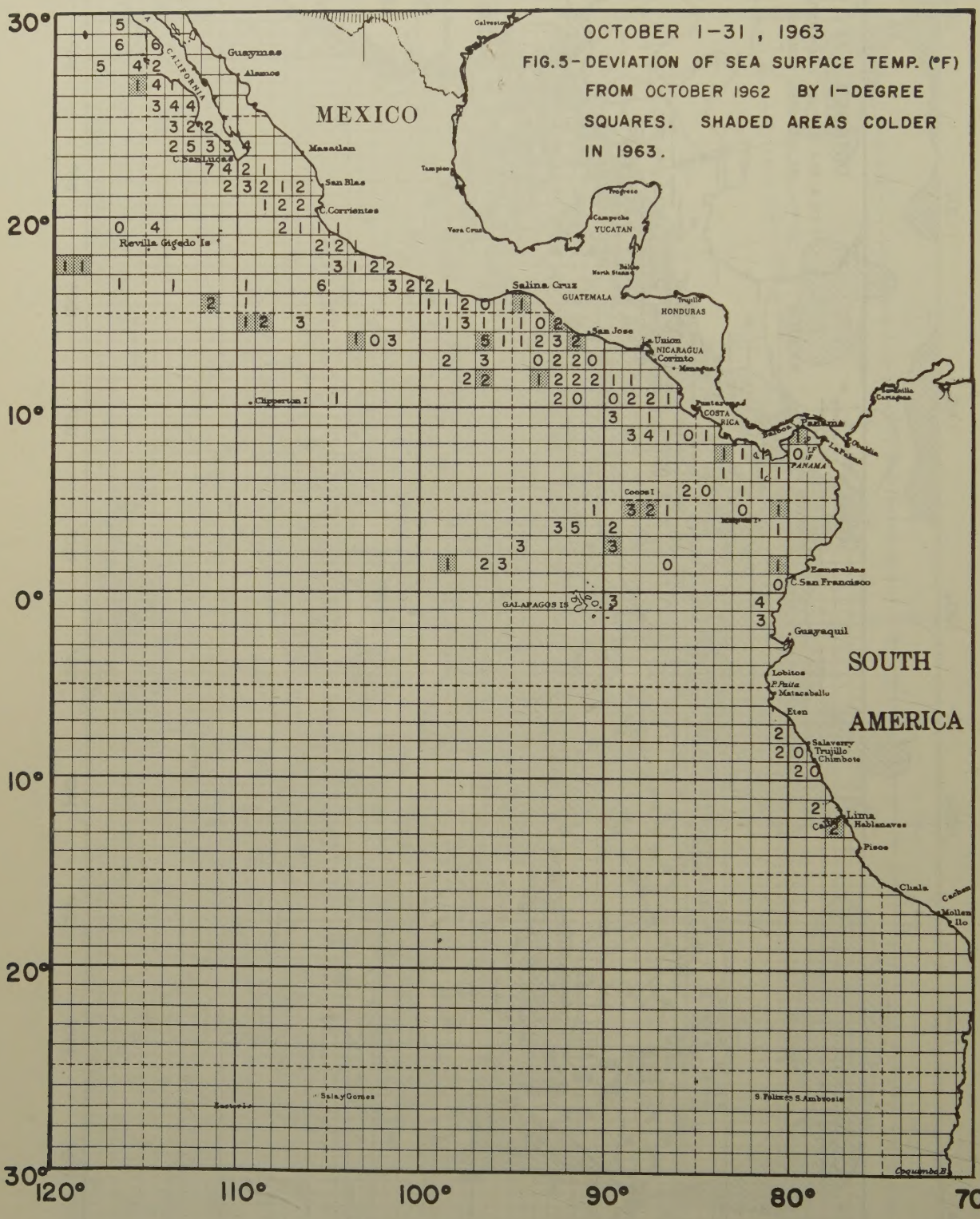
James A. Renner
Fishery Biologist (General)

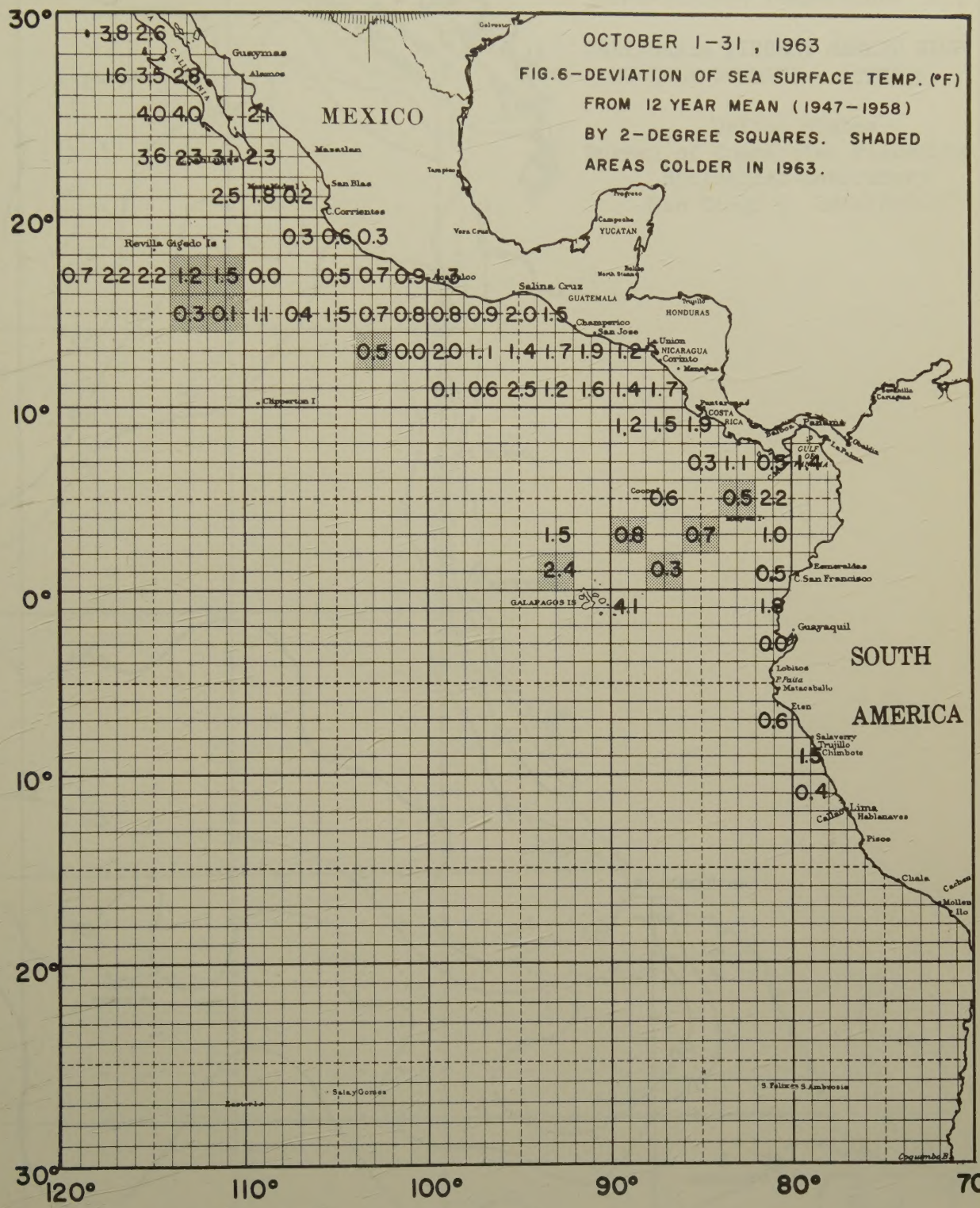

OCTOBER 1-31, 1963
FIG. 1-MEAN SEA SURFACE TEMPERATURES (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

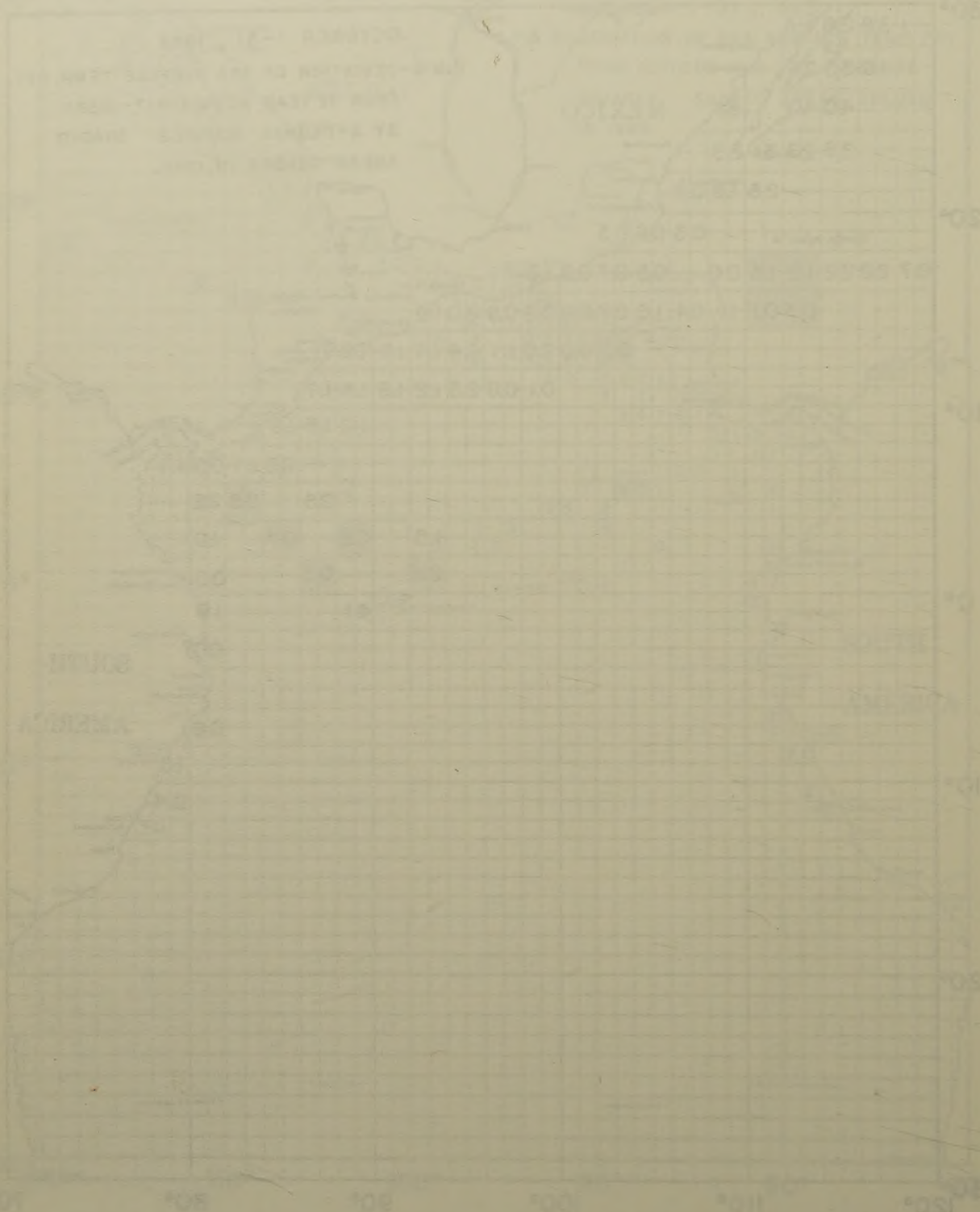

OCTOBER 1-31 , 1963
FIG.2-DEVIATION OF SEA SURFACE TEMP. (°F)
FROM LONG TERM MEAN. HATCHED
AREAS COLDER IN 1963.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

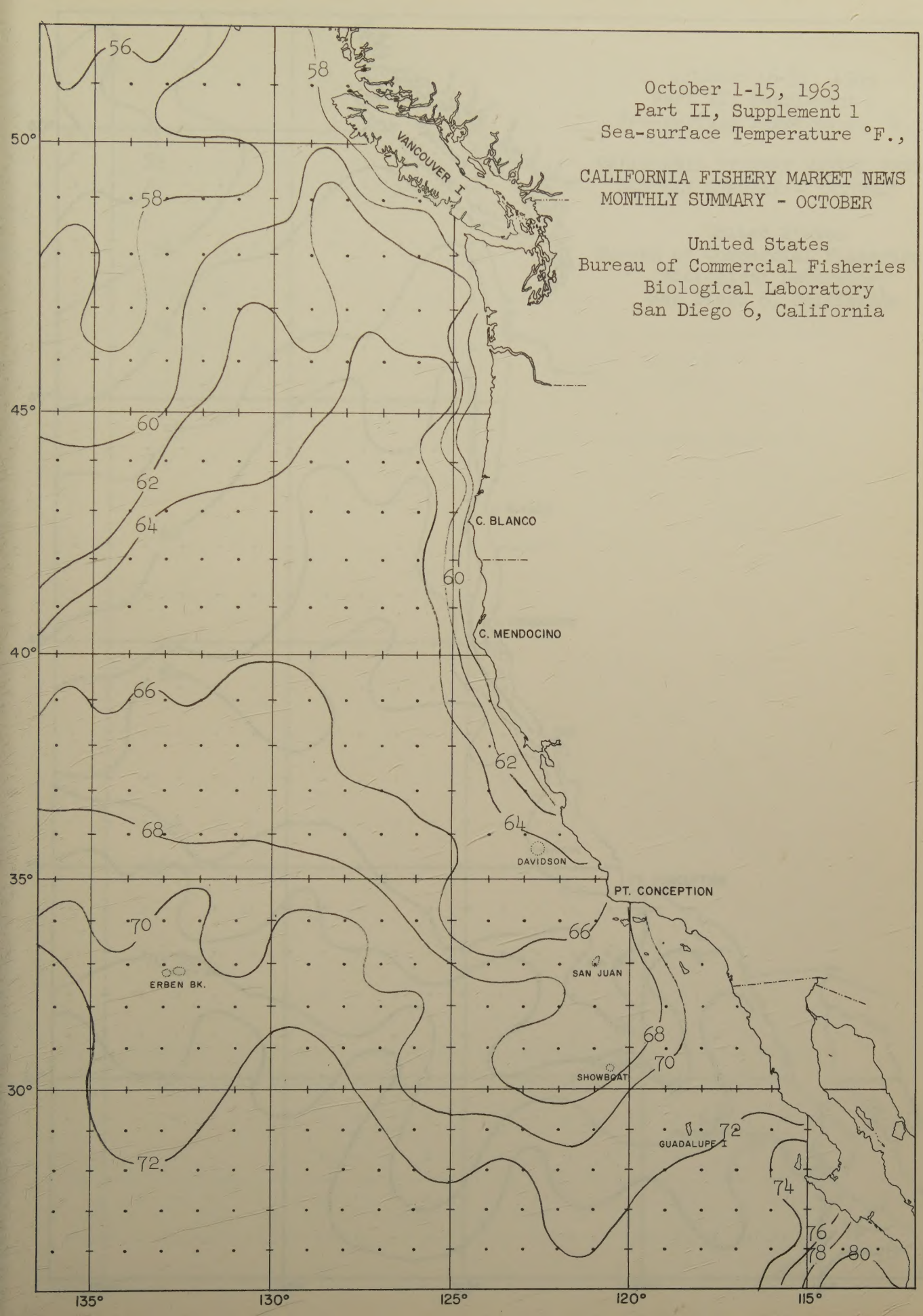

OCTOBER 1-31 , 1963
FIG.3-DEVIATION OF SEA SURFACE TEMP. (°F)
FROM OCTOBER 1962. HATCHED
AREAS COLDER IN 1963.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

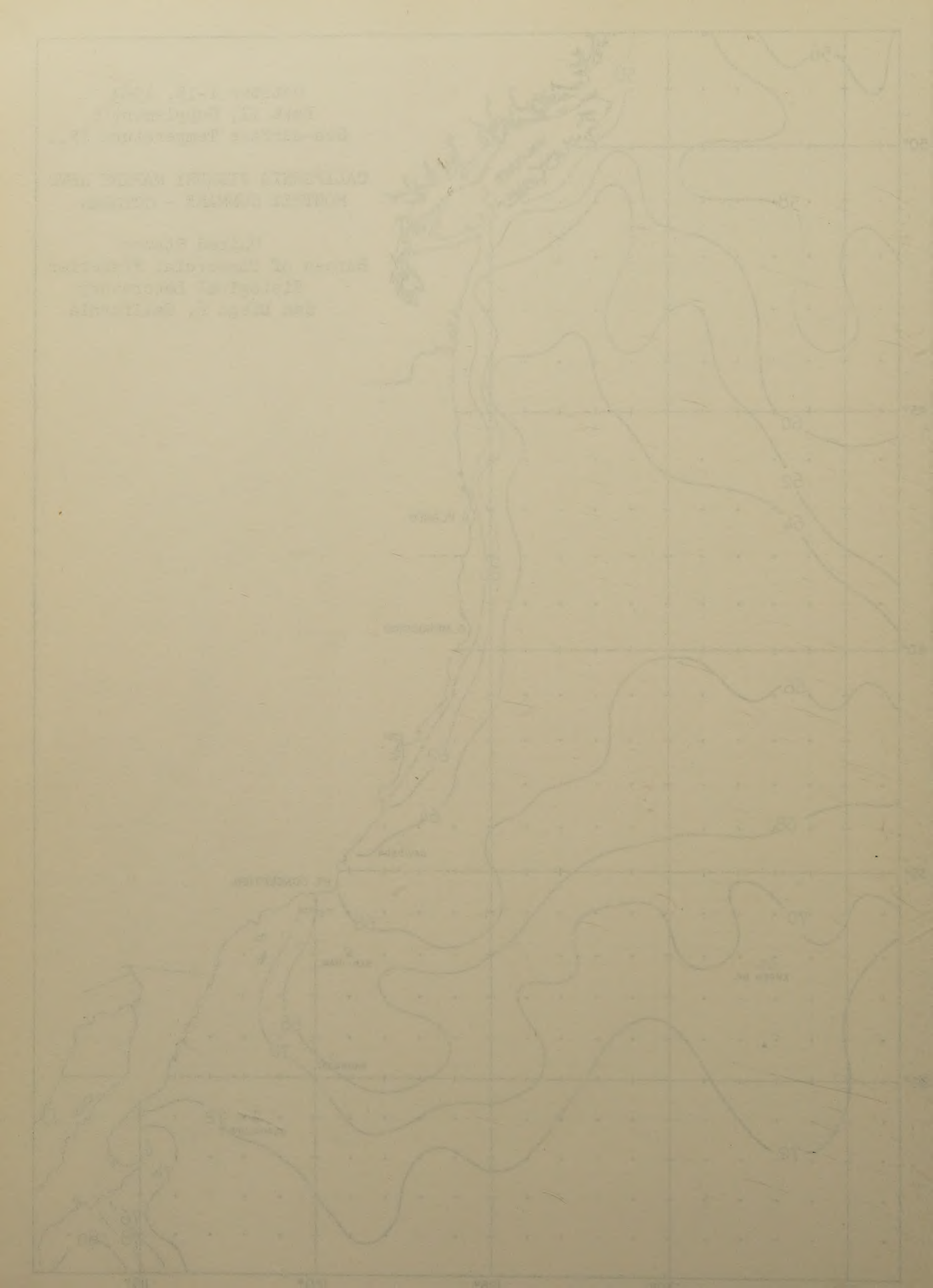

OCTOBER 1-31, 1963
FIG.4-SEA SURFACE TEMPERATURES (°F)
BY 1-DEGREE SQUARES.
MEXICO
SOUTH
AMERICA
HAWAIIAN ISLANDS
Honolulu
Midway I.
PHOENIX ISLANDS
Canton I.
Christmas I.
Fanning I.
MARQUESAS IS.
TUAMOTU ARCHIPELAGO
SOCIETY ISLANDS
Tahiti
Makatea
UNION ISLANDS
SAMOA ISLANDS
COOK ISLANDS
Rarotonga
TONGA ISLANDS
TUBUAI OR AUSTRAL IS.
Easter I.
Cocos I.
Galapagos Is.
Guaymas
Mazatlan
San Blas
Manzanillo
Acapulco
Salina Cruz
Puerto Chiapas
GUATEMALA
HONDURAS
NICARAGUA
Corinto
Champerico
Guayaquil
Salinas
Manta
San Francisco
Esmeraldas
Tumaco
Buenaventura
Chala
Callao
Matarani
Lobitos
Talara
Paita
Mollendo
30°
20°
10°
0°
10°
20°
30°
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°


OCTOBER 1-31, 1963
FIG. 5 - DEVIATION OF SEA SURFACE TEMP. (°F) FROM OCTOBER 1962 BY 1-DEGREE SQUARES. SHADED AREAS COLDER IN 1963.
MEXICO
SOUTH AMERICA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
YUCATAN
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
C. Corrientes
Salina Cruz
San Jose
Corinto
Clipperton I
Cocos I
Esmeraldas
C. San Francisco
Guayaquil
Lobitos
Talara
Eten
Salaverry
Trujillo
Chimbote
Lima
Pisco
Chala
Mollendo
Arica
Easter I
Sala y Gomez
S Felixes S Ambrosio
30°
20°
10°
0°
10°
20°
30°
120°
110°
100°
90°
80°
70°


OCTOBER 1-31, 1963
FIG.6-DEVIATION OF SEA SURFACE TEMP. (°F)
FROM 12 YEAR MEAN (1947-1958)
BY 2-DEGREE SQUARES. SHADED
AREAS COLDER IN 1963.
MEXICO
SOUTH
AMERICA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
YUCATAN
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
C. Corrientes
Salina Cruz
Champerico
San Jose
La Union
Corinto
Guayaquil
Lobitos
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Hablanaves
Pisco
Chala
Mollendo
Ilo
Esmeraldas
C. San Francisco
Rivilla Gigedo Is
Clipperton I
Sala y Gomez
S. Felix
S. Ambrosio
30°
20°
10°
0°
10°
20°
30°
120°
110°
100°
90°
80°
70°




October 1-15, 1963
Part II, Supplement 1
Sea-surface Temperature °F.,
CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY - OCTOBER
United States
Bureau of Commercial Fisheries
Biological Laboratory
San Diego 6, California
VANCOUVER I.
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
ERBEN BK.
SHOWBOAT
GUADALUPE I
56
58
58
60
62
64
60
66
62
64
68
66
70
68
70
72
72
74
76
78
80
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°



October 16-31, 1963
Part II, Supplement 2
Sea-surface Temperature °F.,

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MONTHLY SUMMARY - OCTOBER

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